

SOME NEW SPECIES OF MALTHODES

(Coleoptera, Cantharidae)

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The members of the genus *Malthodes* have been neglected by North American coleopterists. The reason for this neglect is scarcely comprehensible. The males of *Malthodes* possess sexual characteristics of the terminal abdominal segments that present almost limitless variations. Three such variations are here offered as new.

Malthodes frisoni Fender, new species

Male. Head dark brown, shining, very finely sparsely punctate, wider than the thorax. Antennae as long as the body, the second and third antennal segments equal in length, the fourth segment about one-fifth longer, intermediate segments about four times as long as wide. Thorax yellow, shining, very finely sparsely punctate, transverse, anterior angles rounded, the sides straight, converging to the hind angles which are prominent. Elytra olivaceous, shining, sparsely punctate and rather feebly rugose. Pubescence ashy, fine and sparse. Underside brownish, thorax beneath, femora, basal half of tibiae of front legs and terminal segments of abdomen yellowish with a tendency to become infuscated. Length 3.5 to 4 mm.

Female. Similar to the male but with head slightly narrower than the thorax, antennal segments shorter and the terminal abdominal segments not pale. Length 3.5 to 4 mm.

Male sexual characters. Penultimate ventral convex and inflated, enveloping the sides of the penultimate dorsal, deeply emarginate behind, the emargination being rather evenly rounded. Last ventral stout, elongate, broadly and rather shallowly notched as viewed ventrally. In profile the last ventral is feebly sinuate and slightly notched at the tips. Last dorsal short, shallowly, angularly emarginate (figs. 1 and 2).

Holotype, male, *allotype*, female, and four *paratypes*, CHARLESTON, ILLINOIS, May 29, 1937, collected by Frison and Burke; two *paratypes*, FOUNTAIN BLUFF, ILLINOIS, May 7, 1925, collected by Frison; three *paratypes*, HEMSTEAD COUNTY, ARKANSAS, May 10, 1939. Single *paratypes* from the following localities and dates: OAKWOOD, ILLINOIS, May 24, 1926, Frison and Auden; Oakwood

Illinois, June 2, 1927, Frison; Oakwood, Illinois, June 6, 1924, Frison; MUNCIE, ILLINOIS, June 8, 1927, T. F. and A. G., SAINT JOSEPH, ILLINOIS, June 9, 1912.

This species and *Malthodes concavus* LeC. are isolated from the other known North American species by the convex, inflated penultimate ventral segments of the males. The last ventral segment of *M. concavus* is a narrow obliquely ascending process. This process is stout and feebly sinuate in *M. frisoni*. I dedicate this species to its main collector.

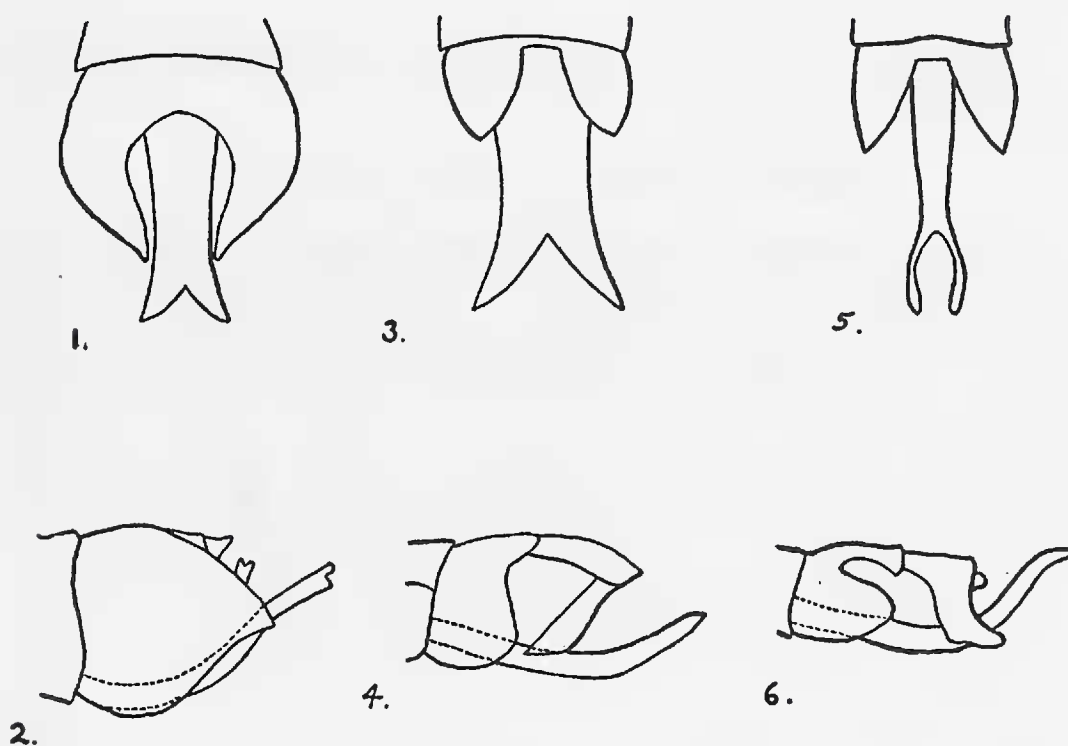


Fig. 1. Ventral view of terminal ventral abdominal segments of *Malthodes frisoni*, n. sp. Fig. 2. Lateral view of terminal abdominal segments of *M. frisoni*, n. sp. Figs. 3 and 4. Same of *Malthodes rotgeri*, n. sp. Figs. 5 and 6. Same of *Malthodes macnabi*, n. sp.

Malthodes rotgeri Fender, new species

Male. Black, posterior margin of pronotum very narrowly and terminal segments of the abdomen pale. Head shining, finely sparsely punctate, rather small, scarcely wider than the thorax. Antennae close together, the antennal tubercles with the inner sides forming a V-shaped notch on the front; second segment shorter than the third, third segment shorter than the fourth; intermediate segments about four times as long as wide. Pronotum finely sparsely punctate, the anterior angles rounded, the

side margins converging slightly to the hind angles which are obtusely rounded into the basal margin. Length 4 mm.

Female unknown.

Male sexual characters. Penultimate ventral segment widely deeply emarginate, the bottom of the emargination truncate. Last ventral stout and furcate, the tines of the furcation strongly divergent. In profile, the last ventral is curved up at the apical third. Last dorsal elongate, in repose projecting downward and toward the head, the tip broadly notched (figs. 3 and 4).

Holotype, male, and one male *paratype*, PAGOSA SPRINGS, COLORADO, June 17, 1940, collected by Rev. Bernard Rotger C. R. for whom it is named.

This species is unique in its elongate, downward and forward projecting last dorsal.

Malthodes macnabi Fender, new species

Male. Black, last two dorsal, last ventral and emargination of the penultimate ventral segments pale. Head shining, finely sparsely punctate, wider than the thorax. Antennal segments two and three subequal, each about three-fourths as long as the fourth, intermediate segments about four times as long as wide. Pronotum transverse, finely sparsely punctate, the front angles obliquely subtruncate, deflexed, side margins convergent from the anterior angles, slightly sinuate, hind angles obtuse. Length 3 to 3.5 mm.

Female. Black with last dorsal abdominal segment pale. In a few specimens the pronotum is paler toward the sides. Head and thorax equal in width, antennae shorter, intermediate segments about three times as long as wide. Length 3 to 3.5 mm.

Male sexual characters. Penultimate ventral widely deeply emarginate, the emargination truncate at the bottom; seventh ventral slender, elongate and widely, deeply furcate, the tines of the furcations slightly swollen apically. In profile, the apical half of the seventh ventral ascending, the ascending portion sinuate; side pieces of the last dorsal descending and projecting backward in a foot-shaped process; the terminus of the last dorsal with a short, ventrally and posteriorly directed median lobe (figs. 5 and 6).

Holotype, male, *allotype*, female, and 25 *paratypes*, LEWIS PEAK, BLUE MOUNTAINS, WASH., June 20, 1941, collected by D. M. and K. M. Fender.

It gives me great pleasure to dedicate this interesting little species to Dr. James A. Macnab with whom I have been closely associated for many years. This species is nearest *Malthodes frosti* Fender but can be readily separated from that species by the color of the thorax, widely emarginate penultimate ventral and the shape of the side pieces of the last dorsal.